

April 26, 1960

Dr. T. Caspersson
Karolinska Institut
Stockholm 60, Sweden

Dear Dr. Caspersson:

As we have been able to discuss before, I have been quite interested lately in the methods by which we might investigate the presence and characteristics of life on other planets in the solar system, especially as vehicles are designed and built that can reach these targets.

After some deliberation a group of us have concluded that the ultraviolet microscope, via a television chain, may be the most powerful instrument for the detection and analysis of "exobiota". I have recently received some funds from the Rockefeller Foundation and then from the National Space Agency to do some of the preliminary ground work in outlining a suitable system. The success of the recent Tiros satellite in relaying television pictures of the aspect of the earth is quite encouraging for a similar link to microscopic images that can be secured on a planetary target.

From our own recent discussions and from what Dr. Mack has relayed to me, I gather that you have felt too deeply obligated to present commitments to enter this field yourself, though I believe this would be very fruitful and welcome from my own point of view. However, I hope that you may still find it possible to be of some assistance in the early scientific development work in this area.

Specifically it would obviously be of great value if we could take early advantage of the achromatic-fluorite optics that have been designed and are being produced by Zeiss. I understand that much of this work has been done by Dr. Trapp in collaboration with you or at least in connection with ultraviolet spectrometric techniques in which you have pioneered. I have inquired concerning the availability of these optics in San Francisco, in New York, and in London and each office has given the same story that they will not be available until many months later this year. We have, however, placed an order through ordinary channels in hopes of obtaining these objectives as soon as they are on the market.

What I am writing to ask, as a personal favor of great help to me in my own work, is whether you could be of any assistance in helping us

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procure a set of these objectives for use in the near future. We have a television receiver, with an ultraviolet-sensitive camera tube on hand at the present time and we are also due to receive a set of monochromatic objectives from Cooke's very soon. However, these would not be nearly so satisfactory as the new Zeiss ought to be. Any help that you may be able to offer in this direction would be deeply appreciated by me.

With best personal regards,

Yours sincerely,

Joshua Lederberg

87B
line.